

What is claimed is:

1. An activatable drying device which comprises a sheet-form matrix having at least one regenerable desiccant present therein.
- 5 2. The drying device as claimed in claim 1, which further comprises a layer of a water-vapor-permeable material.
3. The drying device as claimed in claim 1, which further comprises a pressure-sensitively adhesive layer.
4. The drying device as claimed in claim 1, which further comprises a protective layer.
- 10 5. The drying device as claimed in claim 1, which further comprises a support layer.
6. The drying device as claimed in claim 1, which further comprises a backing layer (release liner).
- 15 7. The drying device as claimed in claim 1, wherein the desiccant matrix is elastic.
8. The drying device as claimed in claim 1, wherein the desiccant matrix is pressure-sensitively adhesive.
9. The drying device as claimed in claim 1, wherein said regenerable desiccant is selected from the group consisting of CaCl_2 , CaSO_4 , Al_2O_3 , Na_2SO_4 and polyvinylpyrrolidone.
- 20 10. The drying device as claimed in claim 1, wherein said sheet-form matrix comprises a polymeric material.
11. The drying device as claimed in claim 1, wherein said regenerable desiccant is present in an amount of between 0.5 and 70% in said sheet-form matrix (based on the overall weight of the matrix).
- 25 12. The drying device as claimed in claim 1, wherein the sheet-form matrix present therein has a height of between about 50 μm and 3 mm.
- 30 13. A process for producing a sheet-form drying device, which comprises:
 - a) preparing a desiccant matrix comprising a regenerable desiccant in nonactive form, with no additional measures to reduce the moisture content of the ambient air space,
 - b) if desired, performing further steps for producing a sheet-form drying device comprising said desiccant matrix, these steps likewise being performed without additional measures to reduce the moisture content of the ambient air space, and
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c) subsequently activating the sheet-form drying device.

14. The process as claimed in claim 13, wherein said activating takes place by storing the sheet-form drying device at increased temperature.
- 5 15. The process as claimed in claim 13, wherein said activating takes place by irradiating the sheet-form drying device with infrared light.
16. The process as claimed in claim 13, wherein said activating takes place by irradiating the sheet-form drying device with microwaves.
17. The process as claimed in claim 13, wherein said activating is assisted by additional air circulation.
- 10 18. The process as claimed in claim 13, wherein said activating is further assisted by a reduced external pressure.
19. The process as claimed in claim 13, wherein said activating takes place by a combination of storage at increased temperature and/or irradiation with infrared light and/or irradiation with microwaves, with or without the use of additional measures comprising additional air circulation and/or reduced external pressure.
- 15 20. The use of a sheet-form, activatable drying device for reducing or maintaining constant a defined moisture content of a closed gas space surrounding said device.
- 20 21. The use as claimed in claim 20, wherein said gas space surrounding said device further comprises a moisture-sensitive article.
22. The use as claimed in claim 20, wherein the moisture-sensitive article is a food, a drug, a diagnostic agent, a medicament, a chemical, or a biologically activatable material.
- 25 23. The use as claimed in claim 20, wherein the moisture-sensitive article is a tablet, a transdermal therapeutic system, or a sheet-form pharmaceutical administration form for oral use.
24. The use of a sheet-form drying device for removing molecules of organic solvents and/or odorous substances from a gas space surrounding said device.
- 30 25. A method of reducing the moisture content of a closed gas space and/or maintaining a reduced moisture content of a closed gas space, which comprises
- 35 a) in a first step converting an activatable drying device, comprising a sheet-form matrix having at least one regenerable desiccant, by activation into the active state,

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- b) in a further step placing the activatable drying device in the active state into the gas space whose moisture content is to be reduced and/or whose reduced moisture content is to be maintained,
- c) in a further step airtightly closing said gas space with respect to the surroundings; and
- d) in a further step, the activatable drying device in the active state absorbs moisture from the airtightly closed gas space over a period of at least one hour.

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